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Improving Prevention Curricula: Lessons Learned Through Formative Research on the Youth Message Development Curriculum

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This article describes formative research (a pilot study, interviews, and focus groups) conducted as part of a feasibility test of 2 versions (Analysis vs. Planning) of a brief media literacy intervention titled Youth Message Development (YMD). The intervention targets high school student alcohol use with activities to understand persuasion strategies, increase counter-arguing, and then apply these new skills to ad analysis or a more engaging ad poster planning activity. Based on the theory of active involvement (Greene, 2013), the Planning curriculum is proposed to be more effective than the Analysis curriculum. Overall, results of the formative research indicated that students ($N = 182$) and mentors/teachers ($N = 53$) perceived the YMD Planning curriculum as more interesting, involving, and novel, and these ratings were associated with increased critical thinking about the impact of advertising, lower alcohol use intentions, and fewer positive expectations about the effects of alcohol use. Qualitative feedback indicated a need to supplement alcohol-focused ad stimuli with ads targeting other advertising images, use incentives and competition-based activities to further enhance student motivation, and provide flexibility to enhance the appropriateness of the curriculum to various settings. These concerns led to the development of a revised curriculum and plans for further study.

Adolescent substance abuse remains a significant public health concern, with alcohol the most widely used substance among youth in the United States (Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2015). There are numerous short- and long-term consequences of underage drinking for adolescents (Centers for Disease Control and Prevention, 2010); thus, it is imperative to create interventions that prevent alcohol use and abuse. A variety of prevention tools have brought about some positive change, particularly among middle school students (Wilson, Gottfredson, & Najaka, 2001), yet high school alcohol use remains high (Johnston et al., 2015). In addition, there is a link between exposure to alcohol advertising and subsequent drinking behavior in youth (Smith & Foxcroft, 2009). One promising approach to underage alcohol prevention focuses on building resilience against negative influences through media literacy (Banerjee & Greene, 2007; Potter & Byrne, 2009), an approach exemplified by the Youth Message Development (YMD) curriculum.

Media Literacy Interventions

Media literacy advocates utilizing analysis of the various kinds of mass media, identification of the functions of media, and engagement with the planning or production of messages in order to teach students to critically examine media messages (Banerjee & Kubey, 2013). Media literacy can increase youth's understanding of the persuasive intent of commercials, change attitudes toward unhealthy behaviors, and inculcate values regarding the critical viewing of television (see Jeong, Cho, & Hwang, 2012). These effects are posited to extend beyond comprehending media, with a goal to generalize and apply related critical thinking processes across situations (Scharrer, 2006).

Media literacy assumes that one can forewarn adolescents and activate their cognitive defenses against future attacks on beliefs (i.e., pro-Alcohol, Tobacco, Other Drugs messages; see inoculation theory in Banerjee & Greene, 2007). As individuals become aware of persuasive strategies, they build up resistance to those strategies. This implicitly supposes that one can protect youth against future pro-drug messages while also activating resistance to previous influence through reconsideration of persuasive messages (see Greene, 2013, theory of active involvement).

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Media literacy workshops on drinking and cigarette smoking demonstrate favorable results for elementary and middle school children (i.e., reductions in pro–alcohol-, tobacco-, and other drug-related attitudes, intentions, and behavior; Austin & Johnson, 1997; Banerjee & Greene, 2006, 2007; Bergsma & Ingram, 2001). Media literacy training also improves cognitive resistance to alcohol ads (Slater & Rouner, 1996). However, these programs often target children and early adolescents. Pinkleton and colleagues (2007) suggested the need for media literacy interventions targeted at older adolescents and young adults, noting that the development of such programs requires research that identifies which program components account for their effectiveness along with how the interventions function theoretically (Banerjee & Kubey, 2013; Jeong et al., 2012; Potter & Byrne, 2009). The current study addresses this need by adapting intervention components for high school youth and comparing two specific intervention features.

Media literacy curricula generally use and sometimes combine two broad kinds of strategies—one focusing on analytical activities (analysis of media messages) and the other on hands-on work (planning and/or production of media messages). Few studies have compared analysis to planning, and it is therefore unclear whether one or the other is sufficient alone or whether the two produce optimal effects in combination. Banerjee and Greene (2006, 2007) provide one exception, reporting that the analysis and then planning of anti-tobacco messages was superior to the analysis of tobacco ads alone in changing substance use expectancies and intentions.

Advancing Media Literacy Interventions

Although media literacy provides a promising framework, research testing the efficacy of media literacy intervention program is needed in several areas. One area of inquiry concerns student motivations to engage in the program. In many media literacy interventions students primarily view persuasive messages/ads or respond to stimuli presented (Greene, 2013; Worden & Flynn, 2002). These interventions focus more on the acquisition of the knowledge and skills needed to resist persuasive media but may fail to engage adequately or increase efficacy (Greene, 2013). Actively engaging audiences in prevention interventions such as generating messages appears more effective (see Tobler et al., 2000). The YMD curriculum explores increasing the level of engagement by comparing an analysis task with one that combines analysis with planning of substance use prevention messages.

The YMD Curriculum

The present article describes the development of an alcohol-targeted high school media literacy intervention delivered face to face by trained facilitators. The curriculum development was guided by the theory of active involvement (Greene, 2013). The development process began with the creation of a preliminary YMD curriculum based on curricula used in previous research (Banerjee & Greene, 2006; 2007; see also Hecht et al., 2008). Initial efforts focused on adapting the target from smoking to alcohol, including selecting new stimulus ads. In addition, developers created activity worksheets to supplement the 75-minute initial YMD curriculum, leading to the revised 90-minute curriculum.

Facilitators initially cover media-related terms and media reach, demonstrating the connection to advertising by illustrating key concepts through an analysis of recent print ads from youth-read magazines. This analysis of pro- and anti-alcohol stimulus ads encourages discussion and application of content. The curriculum not only covers persuasion strategies (endorsement, glamour/sex appeal, having fun as one of the group, humor/unexpected) and production components (using people, setting, font, visuals) but also emphasizes message claims, evidence, and claims missing from ads (counter-arguing). In the last section, students in the Analysis version of the curriculum complete group analyses of additional ads, whereas students in the Planning version design anti-alcohol posters that they believe would be effective for students in their school. Both versions include handouts, sample messages, and small-group activities specifically designed to engage students.

Study Objectives and Research Questions

This article describes formative research conducted as part of a feasibility test of the two versions of the YMD curriculum, focusing on how phases of formative research (pilot testing, interviews, and focus groups) led to curriculum revisions and improvements (Lefebvre & Flora, 1988). Numerous media literacy programs have described student and teacher feedback in the development of media literacy programs (e.g., Redmond, 2012; Scull & Kupersmidt, 2011). Research questions include the following:

 Research Question 1: Would target youth and their mentors/teachers find the preliminary and revised YMD interesting, involving, and novel?
 Research Question 2: What modifications would target youth and mentors/teachers suggest for the preliminary and revised YMD?

Methods

The formative research to revise YMD consisted of three phases with two distinct types of informants. The three formative phases included (a) a posttest-only pilot study comparing two versions of the preliminary curriculum and obtaining feedback from high school students and mentors from Pennsylvania, (b) interviews with a separate cohort of high school students from New Jersey to assist with the selection of new stimulus ads for the preliminary curriculum, and (c) focus groups with an additional cohort of high school students and teachers from New Jersey to solicit feedback on a revised version of the curriculum and related materials.[1] A university institutional review board approved the study procedures, with participants providing informed consent or assent (with parental consent for minors).

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[1]There was no sample overlap across the three phases of this reported formative research for either teachers or students. The interviews and focus groups contained students (and teachers) who were not part of the intervention study reported. In addition, interview participants did not participate in the focus groups, leading to the representation of 37 unique schools (32 across Pennsylvania, five across New Jersey, and no repeating students or teachers/mentors in this project).

Phase 1: Pilot Study of the Preliminary YMD Curriculum, Methods, and Results

Student Survey Description

A total of 148 male ($n = 44$) and female ($n = 104$) 10th-grade high school students (ages 14–16, $M = 15.57$, $SD = 0.61$) participated in pilot testing the preliminary 75-minute YMD curriculum while attending a leadership institute. These students came from 32 schools across Pennsylvania representing rural, small town, suburban, and urban school districts. About 63% of the student participants reported their race/ethnicity as White, 18% as Hispanic/Latino, 13% as Black, 3% as American Indian/Alaska Native, and 3% as Asian American/Pacific Islander. This breakdown slightly overrepresented non-Whites compared to overall Pennsylvania student demographics.[2] Based on random assignment by school group, roughly half of the students participated in a poster planning session (Planning) while half engaged in an analysis-only version (Analysis). Students provided post-intervention evaluation of the curriculum through surveys in addition to commenting orally and providing written free response.

Student quantitative survey measures analyzed indicators of both curriculum evaluation and potential program outcomes (i.e., alcohol use–related variables). The items for each measure were averaged into composite scores as described in Greene and colleagues (2015), including involvement, novelty, reflectiveness, and perceived gain adapted from prior research (e.g., Banerjee & Greene, 2007). Program outcome variables consisted of peer descriptive norms, friend descriptive norms, alcohol use, and positive alcohol expectancies modified from Hansen and Graham (1991), Hecht and colleagues (2008), and Fromme, Stroot, and Kaplan (1993).

Student Survey Results

To examine perceptions of the YMD curriculum, we used t tests to compare the YMD Planning versus Analysis group responses. Students viewed the Planning version ($M = 3.40$, $SD = 0.86$) as more novel than Analysis ($M = 3.08$, $SD = 0.90$), $t(146) = -2.92$, $p < .001$. Students also perceived the Planning version ($M = 3.94$, $SD = 0.69$) as more involving than Analysis ($M = 3.58$, $SD = 0.81$), $t(146) = -2.23$, $p < .01$.

Based on bivariate correlations, students' perceptions of curriculum involvement and novelty were associated with a number of important outcomes (see Table 1). Perceptions of workshop novelty and involvement were correlated with perceived gain from the workshop (novelty: $r = .18$, involvement: $r = .41$, $p < .001$), reflectiveness (novelty: $r = .24$, involvement: $r = .47$, $p < .001$), alcohol use intentions (involvement: $r = -.15$, $p < .01$), and alcohol expectancies (involvement: $r = -.16$, $p < .01$). That is, when students perceived the curriculum as more involving and novel, then students thought more about the personal impact of advertising as well as more about advertising messages generally. In addition, students who perceived the curriculum as more involving also expressed lower alcohol use intentions ($r = -.15$, $p < .01$)

and fewer positive expectations about the effects of alcohol use ($r = -.16$, $p < .01$).

Mentor Survey Description

Male ($n = 12$) and female ($n = 28$) mentors accompanied students to the leadership institute, with one or two mentors per school (ages 20–65, $M = 37.38$, $SD = 13.05$). Mentors were primarily teachers (64%; subjects varied), counselors (14.5%), administrators (6.5%), or youth agency workers (4%). The mentors observed the level of student participation and engagement in curriculum activities. Mentors evaluated the curriculum through survey items, through written free response, and by commenting orally. Variables measured in the mentor survey included modified versions of the student items to assess likely student perceptions of the curriculum (involvement, novelty, and reflectiveness) along with items related to the adoption of the curriculum in schools.

Mentor Survey Results

Analyses compared mentor perceptions of the YMD Planning versus Analysis curricula. T tests demonstrated that mentors thought that students found the Planning version ($M = 4.25$, $SD = 0.43$) more involving than Analysis ($M = 3.67$, $SD = 0.59$), $t(38) = -3.48$, $p < .001$. Mentors also believed that the students found the Planning version ($M = 4.44$, $SD = 0.51$) less boring than Analysis ($M = 3.91$, $SD = 0.53$), $t(38) = -3.29$, $p < .001$. In addition, mentors who attended the Planning version (compared to Analysis) found the curriculum more different from regular school classes/sessions (Planning: $M = 4.25$, $SD = 0.43$; Analysis: $M = 3.67$, $SD = 0.59$; $t(38) = -1.91$, $p < .05$), more enjoyable to students (Planning: $M = 4.33$, $SD = 0.59$; Analysis: $M = 3.77$, $SD = 0.75$; $t(38) = -2.57$, $p < .01$), more interesting (Planning: $M = 4.44$, $SD = 0.51$; Analysis: $M = 3.91$, $SD = 0.53$; $t(38) = -3.24$, $p < .001$), and more likely to work well in their school (Planning: $M = 4.39$, $SD = 0.50$; Analysis: $M = 3.91$, $SD = 0.53$; $t(37) = -2.81$, $p < .001$). Mentors also reported that the structure of the Planning version ($M = 4.00$, $SD = 0.49$) would better facilitate adoption of the curriculum than the Analysis version ($M = 3.62$, $SD = 0.80$; $t(37) = -1.75$, $p < .05$).

Open-Ended Feedback

Analysts coded mentor and student open-ended feedback into positive and negative comments and then reviewed the two categories to further code the comments into relevant and prevalent subtopics that emerged from the data (Mayring, 2004). Analyses then identified themes within and differences between mentor and student reactions to the Analysis versus Planning curriculum versions (e.g., consensus or discordance with particular views).

Most *students* expressed appreciation for whichever version of the curriculum they participated in, often specifically stating that it kept their "interest" and "attention" or describing knowledge that they gained from the curriculum. One student wrote, "I now view ads differently," whereas a number mentioned learning about the persuasiveness of ads, such as "how an advertisement tries to convince someone." Participants in both versions of the curriculum described specific persuasive techniques used by advertisers, such as "how many beautiful women are used" and the effectiveness of humor or celebrity endorsements. A few students in each condition explicitly discussed how the curriculum made them think about the

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[2]The specific program used for the pilot study requires recruitment and inclusion of social group clusters identified as more at risk and representative of schools widely.

Table 1. Pilot test student correlations between curriculum evaluation and substance use–related variables

Variable	1	2	3	4	5	6	7	8
1. Involvement	—							
2. Novelty	.48***	—						
3. Perceived gain	.41***	.18***	—					
4. Reflectiveness	.47***	.24***	.56***	—				
5. Peer descriptive norms	−.04	.01	−.01	−.05	—			
6. Friend descriptive norms	−.01	−.02	.03	−.01	.39***	—		
7. Alcohol use intentions	−.15**	.01	−.05	−.22***	.15*	.41***	—	
8. Positive alcohol expectancies	−.16**	−.01	−.11	−.16**	.18**	.36***	.65***	—

$*p \leq .05$, $**p \leq .01$, $***p \leq .001$, two-tailed.

negative impacts of alcohol, such as "how the effects of alcohol can change a person's life." One difference was that students participating in the Planning version were more likely than Analysis version participants to explicitly mention enjoying or liking the main activity of their version—the final poster planning (compared to the second ad analysis activity).

When describing what they liked about the curriculum, *mentors'* responses focused around four themes: the interactive nature of the curriculum presentation, the group activities, the ads, and the knowledge students gained. Across both versions of the curriculum, mentors appreciated the "hands-on" activities and encouragement of students' expression of "their own views." Some mentors explicitly mentioned the group work on the ad analysis or poster planning, which were equally likely to be mentioned by mentors in both conditions. Mentors in both conditions also liked the colorful ad examples, especially because they represented "real-life examples" that were familiar to the students. In addition, some mentors liked how the curriculum demonstrated how persuasive ads work and also how it encouraged students look at the "negligent effects of alcohol."

Suggested Curriculum Modifications

Student and mentor insights into potential modifications of the preliminary curriculum included suggested changes to ads, revisions to the timing of the lesson, concerns about repeating content learned in other classes, and revisions to the format of curriculum materials.

All ad examples presented in the preliminary curriculum targeted alcohol. Many mentors and students who participated in either version of the curriculum indicated that they wanted more variety in the ads. One student expressed that the use of alcohol ads alone "limited the workshop," whereas one mentor questioned whether the curriculum needed "to be all alcohol centered." Some of the mentors expressed concern that the extensive use of pro-alcohol stimulus ads may promote alcohol to the youth participants. Both students and mentors suggested ads targeting other products, such as tobacco and junk food, or other health behaviors, such as drug use and sexual activity. Some mentors also thought that two ads should be removed because they were sexually suggestive.

Discussions of timing issues with the curriculum revolved primarily around the curriculum feeling too rushed, with students in the Planning versions of the curriculum especially feeling that they did not have enough time to execute their posters. A few of the mentors suggested cutting down on some of the ad examples to focus the curriculum a bit more. Several students and mentors suggested reducing the emphasis on information that students had learned in other classes—as one mentor put it, "Most high school curricula cover advertising techniques." This perspective seemed to primarily come from students/mentors in a few schools in the sample in which media literacy is incorporated into the school's curricula. The final theme emerging from the mentors concerned formatting changes to curriculum material, including suggestions to project ads (i.e., through liquid-crystal display or overhead projector), to provide more handouts to the students (i.e., to provide a definition of terms), and to include videos to allow for the presentation of television ads.

Phase 2: Student Interviews About the Preliminary YMD Curriculum, Methods, and Results

Student Interview Description

Twenty interviews with 10th-grade high school students (40% female) provided information on potential sources of new ads to include in the curriculum and feedback on specific stimulus ads. Of these students, 45% reported their race/ethnicity as White, 30% as Black, and 10% as multiracial (15% not reported).

Student Interview Results

The pilot study results provided an impetus to further assess stimulus ads and select new ads to replace some of the alcohol-targeted ads in the pilot curriculum. As part of student interviews conducted after the pilot study, adolescents provided information on relevant magazines to use as sources for the new stimulus ads.[3] The students also provided input on several new ads selected for potential inclusion in the curriculum, specifically commenting on the perceived claims and effectiveness of the ads along with their targeted audience.

The interviews highlighted the importance of selecting ads that fit particular target audiences. For example, in the pilot curriculum the ad used to exemplify celebrity endorsement focused on Kasey Kane, a NASCAR driver sponsored by a beer company. Eighteen

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[3]The list of magazines generated by the students included *Cosmopolitan, Game Informer, Ebony, ESPN Magazine, Jet King, Life & Style, OK, PC Gamer, People, Pop Vulture, Psychology Today, Seventeen, Sports Illustrated, Teen Vogue, Time, US Weekly,* and *Vibe.*

of the 20 students could not identify this celebrity; this, along with the need to focus the stimulus ads less on alcohol, prompted removal of that ad. In contrast, most ($n = 16$) student interviewees could accurately identify Taylor Swift (in a "Got Milk?" ad). One student described the Taylor Swift ad as follows: "Well, for one it's Taylor Swift, and a lot of my friends find her as a role model ... Taylor Swift's got milk, they'll think it's really cool to have milk too." Another one of the new ads featured a truck; some ($n = 8$) of the interviewed students disliked this ad because they would never buy the featured product, whereas others ($n = 9$) described it as very effective.

Another insight concerned perceptions of humor. The students perceived straightforward humor easily, whereas more abstract ads (i.e., an upside-down yoga diet soda ad or the chalk outline of an Absolut liquor bottle) were more difficult to process. When asked for the point or the claim of one ad, one interviewee exclaimed that "it doesn't make any sense," whereas a different ad was described as "not very interesting" because of the abstract visuals. The final insight from the interviews on the stimulus ads concerned the importance of not being seen as selling alcohol to the curriculum participants. Some ($n = 4$) of the students perceived the ads that way, and a few ($n = 3$) were offended, echoing mentor comments from the pilot phase. On the flip side, the selection of anti-alcohol ads for the curriculum was challenging. Although some ($n = 7$) of the interviewed students liked the new anti-alcohol ads, some ($n = 5$) saw them as targeted to a younger age group, did not understand them (abstract humor), or perceived structural issues in the ads (e.g., one ad was "just really wordy").

Phase 3: Student and Teacher Focus Groups, Methods, and Results

Focus Group Description
The final phase of formative research included four focus groups with students (two groups) and teachers (two groups) to provide feedback on a revised version of the curriculum and potential ad stimuli used to illustrate concepts. This revised version of the curriculum incorporated changes based on the pilot study and student interview results. The 10th-grade high school students reflected the general target audience of the intervention and were separated by gender to facilitate participant comfort in answering questions. The female student focus group ($N = 6$) included three Black, two Latina, and one White student. The male student focus group ($N = 7$) included three Black, two White, one Latino, and one biracial student.

The teacher focus groups included adults who currently taught 10th grade. The first group of teachers ($N = 7$) included five White females, one Black female, and one White male ranging in age from 27 to 54. The second group ($N = 6$) included two White females, two White males, one Black male, and one Latino male ranging in age from 26 to 57. The focus group teachers taught a variety of subjects, including English, Spanish, music, health, social studies, math, and history.

An experienced focus group leader utilized a semistructured guide to lead 90-minute student and teacher focus groups. The moderator led each group through the YMD curriculum, pausing to request specific feedback on activities and stimulus ads.

Afterward students provided their overall perceptions of the curriculum (interest and novelty) along with suggestions for improvements and potential barriers. Teachers responded to similar prompts, along with additional questions about incorporating YMD into existing classroom activities and clarifying instructions in the curriculum guide.

Focus Group Results
The student and teacher focus groups interacted with a revised version of the YMD curriculum developed from the pilot study and interview feedback.

Both students and teachers highlighted the ads as a major factor in student interest in the curriculum. Students especially liked the "updated," more recent ads included in the curriculum. Most teachers ($n = 4$) recommended a homework component in which students collected ads to analyze and also suggested beginning the presentation with an engaging visual example. As one teacher put it, "You didn't get my attention until you started showing me pictures, so you might want to maybe just kind of tease them with one or two ads." Each of the focus groups also expressed enthusiasm about the poster making activity because of the "hands-on" nature of the activity and the ability to be "more creative." As summed up by one student, "You do more for it and stuff. It's just like—you're learning either way, but it's like you're actually doing something, so it makes it more interactive." Most students ($n = 9$) believed that the poster planning activity in the curriculum would prove more effective in addressing alcohol use than other methods currently used at their school, such as lectures in health class (where "it goes in one ear and out the other") or other prevention curricula. Students were overall less interested in the first activity (group discussion and analysis of an ad), which was portrayed as "nothing very interesting" by one of the boys, but it was also viewed as at least "more interesting than other stuff they do in school."

When considering the novelty of these activities and the curriculum overall, most students ($n = 8$) and teachers ($n = 3$) indicated that existing classes sometimes incorporate similar content (media literacy) or similar activities (poster planning). Regardless of the existence of similar content or activities in some courses, all groups also noted that the YMD curriculum differed from what most students "normally" experience and would therefore capture attention. Most teachers ($n = 4$) thought the curriculum could be incorporated into courses from health to social studies (to teach propaganda) and language arts (to teach persuasive arguing). However, a few teachers ($n = 2$) and students ($n = 3$) expressed concern that the novel nature of the curriculum, group activities, and the stimulus ads might make it challenging to keep students focused, with girls worried that the lesson may get "too loud" and "out of control," noting that boys their age had difficulty remaining focused without clear structure.

Suggested Curriculum Modifications
The suggestions revolved around several themes, which included (a) making the curriculum more culturally diverse/ appropriate, (b) using competition and rewards as motivators,

(c) making changes to the activity sheets, (d) adding more time for the curriculum, and (e) extending the curriculum by presenting video ads or by having students produce professional-looking posters or videos.

With regard to cultural diversity, the boys' group raised the issue of balancing ethnic representation in the stimulus ads. They did not perceive the ethnic/racial minority representation of Latinos/as in several ads but noticed one of the anti-alcohol ads that showed Black males engaged in illegal behavior (drinking and driving). One student asked, "Why they got to be Black, though?" The teachers echoed this concern, also failing to note the inclusion of Latinos/as in ads, and suggested providing a choice of multiple ads for each section of the curriculum to aid diversity. Another culturally related concern was the use of "having fun as one of the *gang*" to describe one of the persuasion strategies. Teachers felt that students would bring in all of the negative connotations associated with the word *gang* and instead suggested changing this word to *group* or labeling the strategy *bandwagon.*

Another issue students and teachers raised was motivation to participate fully in the curriculum. Students expressed skepticism about whether their peers would actively participate in the activities, especially discussion activities, without some aspect of reward (e.g., extra credit, "at least 10 points!") or competition (e.g., a debate). One student shared the following about competition as a motivator:

> If you have two people competing then they're going to want to get the answers right, and they're going to want to like know the information so that they can get whatever the prize is of winning. Even if it's just winning, you don't really get anything, they just want to win.

Given the students' emphasis on competition as a motivator, the focus group leader asked teachers their perceptions of the effect of adding a competitive aspect to the activities. The teachers described their students as repeatedly asking "Is this *graded?"* before willingly participating. As one teacher summed up, "They're incentive driven. The incentive drives the competition. If there's no incentive then you're more apt to not get as much of an effort." The teachers therefore suggested graded assignments and provided input on how to incorporate elements of competition into the curriculum guide and written activity instructions.

Students and teachers also provided input to revise the prototype activity sheets included with the curriculum. Both the boys and the teachers suggested using "bullet lists" to clarify instructions along with making the sheets more visually appealing by adding "more graphics and stuff." Most teachers suggested more detailed instructions, including phrasing like "Please respond in complete sentences" and "Explain in 2–3 sentences," and adding lines for the students to fill in. Teachers advised to "make sure when you ask a questions that they cannot get away with just one word" so that the students explore the issues more deeply. For the poster planning activity sheet, the teachers provided the idea of making students assign individuals in the group to specific roles or tasks in order to ensure that all group members actively worked on the activity. However, they also suggested that implementers randomly select the presenter to make sure all students in the group made an effort to understand their group's work on the activity. Some of the boys also mentioned having different assigned roles for group members because some felt more comfortable with the artistic side of drawing posters whereas others wanted to come up with slogans or reasons for youth not to drink.

Logistically speaking, most teachers expressed a desire to expand the curriculum to up to four classroom sessions rather than implementing the curriculum in one 90-minute or two 45-minute slots as designed. They also wanted to expand the curriculum by using 30-second video clips (television ads), and there was some discussion (and lack of consensus) among the teacher and boy focus groups about adding a video ad production component; the boys in particular seemed really excited about that possibility. Most teachers, however, expressed concerns about the wide range of available classroom technology, even within the same school.

Discussion

This article describes three phases of formative research conducted as part of a feasibility test of the YMD brief media literacy intervention targeting high school students' alcohol use. It demonstrates the utility of obtaining qualitative feedback when developing, evaluating, and revising prevention curricula. Students and teachers/mentors perceive the YMD Planning curriculum version as interesting, involving, and novel, evaluations associated with critical thinking about the impact of advertising, lower alcohol use intentions, and fewer positive expectations about alcohol use. The stimulus ads and poster planning activity drive much of the student interest, involvement, and perceived novelty. The qualitative feedback led to further modifications to improve the curriculum.

Curriculum Modifications

Both the pilot feedback and student interviews prompted reconsideration of the initial decision to include only alcohol-focused stimulus ads in the curriculum and the replacement of about half of the stimulus ads with ads focused on other products, such as beverages, food, and cars. The revised curriculum includes multiple stimulus ads for each section so that implementers can choose the most appropriate ads for their students. Feedback also led to the exclusion of a number of ads because of sexually explicit or implicit content. In addition, the introduction now begins with a portion of a popular Super Bowl ad to generate early discussion.

Focus groups highlighted the need for incentives and competition to promote student involvement. The revised curriculum encourages grading of specific activities and a competition among student poster planning groups. The revised YMD also reinforces curriculum concepts through activity sheets with edits including modified instructions to get more complete responses, the addition of explicit roles/tasks for students, and the incorporation of elements of competition into instructions.

Continuing Challenges

Continuing challenges to the implementation of the curriculum include the time allowed for the curriculum, previous exposure of the students to the curriculum concepts, technical limitations (availability and compatibility), and concerns about keeping the material fresh and exciting. The design was based on developing a *brief* media literacy curriculum that implementers could easily incorporate into one or two periods of different types of classes. Brief interventions have been found to be both practical and cost effective while still demonstrating good efficacy in reducing substance use among adolescents (Monti, Colby, & O'Leary, 2001; Tait & Hulse, 2003; Toumbourou et al., 2007). Although some of the modifications make the curriculum work more smoothly in this brief format, teachers and students still desired more time to focus on curriculum concepts and activities. This will lead to a supplemental activities section so that implementers can expand the curriculum. Supplemental activities could include a homework ad retrieval activity or a component in which students get feedback on their initial poster concept.

Teachers in the focus groups described some technical limitations related to presenting the curriculum—namely, varied access to classroom technology. So although students and teachers in the pilot study and focus groups all mentioned including television ads, the curriculum currently utilizes print ads to expand potential usability across settings. Future research could include parallel television ads to illustrate curriculum goals and insert links to those ads as supplements to the curriculum. A curriculum website could incorporate similar links to updated stimulus print ads.

Study Limitations

Across all three phases, the study sample consisted of youth from Pennsylvania or New Jersey. The quantitative analysis for this article used posttest-only data from the pilot study and therefore could not account for pre-existing differences between participants in the Planning versus Analysis versions. The correlational analyses could not demonstrate a causal relationship between involvement in and perceived novelty of the curriculum and alcohol-related outcomes. In terms of media literacy education, the present study sought to operationalize analysis (the ability to analyze) and production (the ability to create) and test differential effects on the participants; however, not all aspects of media literacy education were operationalized and tested. In addition, the present study did not address mediating mechanisms of intervention effectiveness. Future research should address additional aspects of media literacy education as well as mediators of intervention outcomes (e.g., Kupersmidt, Scull, & Benson, 2012).

Conclusion and Further Research

This formative research-based curriculum development process resulted in an improved curriculum that should help students focus on critical analysis and planning skills. A summary of the revised curriculum content is available at http://wp.comminfo.rutgers.edu/nida/. For maximum effect, curricula should be developed with the end users in mind. Prevention curricula have different audiences or consumers, each with its own organizational culture, contingencies, needs, and opportunities that must be addressed. This is an important direction for the field because no matter how effective an intervention is, if it does not match users' needs or is not adopted and disseminated, it cannot fulfill its design. This strategy holds the potential for aligning intervention design with participants' preferences to maximize chances for dissemination.

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